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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/765,660	01/27/2004	John H. Rosenfeld	H1799-00216	9808
41396	7590	06/28/2005	EXAMINER	
DUANE MORRIS LLP P. O. BOX 1003 305 NORTH FRONT STREET, 5TH FLOOR HARRISBURG, PA 17108-1003			DUONG, THO V	
			ART UNIT	PAPER NUMBER
			3743	

DATE MAILED: 06/28/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/765,660

Applicant(s)

ROSENFELD ET AL.

Examiner

Tho v. Duong

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 15 April 2005.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1,2,5-10,15-18,21-26,31 and 59 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1,2,5-10,15-18,21-26,31 and 59 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Applicant's amendment filed 4/15/2005 is acknowledged. Claims 1-2,5-10, 15-18,21-26,31 and 59 are pending.

The indicated allowability of claims in previous Office Action is withdrawn in view of the newly ground of rejections as followed.

Specification

The specification is objected to as failing to provide proper antecedent basis for the claimed subject matter. See 37 CFR 1.75(d)(1) and MPEP § 608.01(o). Correction of the following is required: the subject matter of “a wick disposed on at least one of said internal surface and comprising a plurality of aluminum and magnesium particles joined together by an aluminum/magnesium intermetallic alloy brazing compound” is not described in the specification. In the specification, applicant only disclose that “other brazes can be also be used...for example, aluminum and magnesium porous brazed wicks can be produced by using a braze that is an aluminum/magnesium intermetallic alloy”. This description is not sufficient to reasonably convey to one skill in the art that the wick comprises a plurality of aluminum and magnesium particles joined by their alloy.

Claim Rejections - 35 USC § 112

The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

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Claim 59 is rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention. The claimed subject matter of "a wick disposed on at least one of said internal surface and comprising a plurality of aluminum and magnesium particles joined together by an aluminum/magnesium intermetallic alloy brazing compound" is not described in such a way to reasonably convey to one skill in the art that the wick comprises a plurality of aluminum and magnesium particles joined by their alloy. It appears that the aluminum and magnesium porous brazed wicks get its name from their brazing material.

Double Patenting

The nonstatutory double patenting rejection is based on a judicially created doctrine grounded in public policy (a policy reflected in the statute) so as to prevent the unjustified or improper timewise extension of the "right to exclude" granted by a patent and to prevent possible harassment by multiple assignees. See *In re Goodman*, 11 F.3d 1046, 29 USPQ2d 2010 (Fed. Cir. 1993); *In re Longi*, 759 F.2d 887, 225 USPQ 645 (Fed. Cir. 1985); *In re Van Ornum*, 686 F.2d 937, 214 USPQ 761 (CCPA 1982); *In re Vogel*, 422 F.2d 438, 164 USPQ 619 (CCPA 1970); and, *In re Thorington*, 418 F.2d 528, 163 USPQ 644 (CCPA 1969).

A timely filed terminal disclaimer in compliance with 37 CFR 1.321(c) may be used to overcome an actual or provisional rejection based on a nonstatutory double patenting ground provided the conflicting application or patent is shown to be commonly owned with this application. See 37 CFR 1.130(b).

Effective January 1, 1994, a registered attorney or agent of record may sign a terminal disclaimer. A terminal disclaimer signed by the assignee must fully comply with 37 CFR 3.73(b).

Claims 1-2,5-10,15-18,21-26,31 and 59 are provisionally rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claims 1-29 of copending Application No. 10/607337 in view of Corman et al. Claims 1-29 of application No.

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10/607337 substantially discloses all of the claimed limitation except for the limitation that at least one or a plurality of vent is defined through the capillary structure. Corman discloses (figures 1-3 and column 2, line 65- column 3, line 1) a heat pipe that has a plurality of cylindrical vents (28) defined through a capillary structure (25) for the purpose of providing a low impedance path to the passage of vapor there through so that the heat transfer coefficient of the heat pipe is increased. It would have been obvious to one having ordinary skill in the art, at the time the invention was made to use Corman's teaching in the heat pipe'337 for the purpose of providing a low impedance path to the passage of vapor through the capillary structure so that the heat transfer performance of the heat pipe can be enhanced.

This is a provisional obviousness-type double patenting rejection.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claim 59 is rejected under 35 U.S.C. 103(a) as being unpatentable over Yoshizumi (JP 359024538A) in view of Corman et al. (US 3,828,849). Yoshizumi discloses (figures 1-4) a heat pipe comprising a wick (2,4) disclosed on at least one of the internal surfaces and comprising a plurality of copper particles (2) joined together by a silver alloy brazing compound such that fillets (4) of the brazing compound are formed between adjacent ones of the plurality of copper particles so as to form a network of capillary passageways between the particles; the spherical copper powder (2) inherently has a melting point as claimed and the silver has a

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melting point lower than the melting point of copper. A heat pipe as known in the art, is to have a hermetically sealed and partially evacuated enclosure so that water or other two phase liquid contained in the heat pipe to perform a cycle of evaporation and condensation. Evidence is shown in Katayama (US 3,921,710). Yoshizumi does not disclose a plurality of vent being defined through the capillary structure. Corman discloses (figures 1-3 and column 2, line 65-column 3, line 1) a heat pipe that has a plurality of cylindrical vents (28) defined through a capillary structure (25) for the purpose of providing a low impedance path to the passage of vapor there through so that the heat transfer coefficient of the heat pipe is increased. Since Yoshizumi and Corman are both from the same field of endeavor and/or analogous art, it would have been obvious to one having ordinary skill in the art, at the time the invention was made to use Corman's teaching in Yoshizumi's heat pipe for the purpose of providing a low impedance path to the passage of vapor there through so that the heat transfer coefficient of the heat pipe is increased. Regarding the material limitation, applicant has not disclosed that having a particular material of aluminum and magnesium and its alloy brazing would solve any stated problem or is for any particular purpose. Applicant also has not disclosed any criticality for having the claimed material. Moreover, it appears that the wick structure would perform equally well with any brazing compound that has less melting temperature than the metal particles. Accordingly, the use of aluminum and magnesium is deemed to be a design consideration, which fails to patentably distinguish over the prior art of Corman and Yoshizumi.

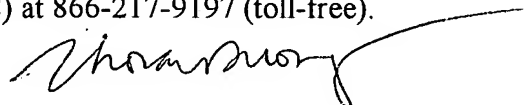
Conclusion

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Any inquiry concerning this communication or earlier communications from the examiner should be directed to Tho v. Duong whose telephone number is 571-272-4793. The examiner can normally be reached on M-F (first Friday off).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Henry Bennet can be reached on 571-272-4791. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



Tho v Duong
Primary Examiner
Art Unit 3743



TD
June 23, 2005